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Chief Clerk of the House

FILED MAR - 1 2007

By: Ken Paxton

H.B. No. 2299

A BILL TO BE ENTITLED

AN ACT

relating to equipment used for irrigation systems.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Chapter 5, Water Code, is amended by adding  
Subchapter S to read as follows:

SUBCHAPTER S. STANDARDS FOR IRRIGATION SYSTEM EQUIPMENT

Sec. 5.901. DEFINITIONS. In this subchapter:

(1) "Evapotranspiration" means the loss of water to  
evaporation and plant transpiration.

(2) "Evapotranspiration-based irrigation control"  
means an automatic irrigation control product that uses  
evapotranspiration data to make seasonal adjustments to irrigation  
schedules to conserve water by applying irrigation only in an  
amount necessary to sustain the healthy growth of plants in the  
landscaped area.

(3) "Irrigation runoff" means surface runoff of water  
generated when the irrigation application rate exceeds the soil  
infiltration rate and moisture saturation level.

(4) "Irrigation schedule" means the frequency with  
which irrigation occurs.

(5) "Irrigation system" has the meaning assigned by  
Section 1903.001, Occupations Code.

(6) "On-site evapotranspiration" means a calculation  
of evapotranspiration made from climatic and other data collected

1 at the irrigation site.

2 (7) "Remote evapotranspiration" means a calculation  
3 of evapotranspiration made from climatic and other data collected  
4 remotely from the irrigation site.

5 (8) "Runoff control" means a manner of controlling or  
6 preventing irrigation runoff.

7 Sec. 5.902. MINIMUM STANDARDS GOVERNING CERTAIN IRRIGATION  
8 SYSTEM EQUIPMENT. (a) This section applies only to an irrigation  
9 system owned by this state or a political subdivision of this state.

10 (b) Except as provided by Subsection (c), the commission  
11 shall require a new or existing irrigation system to have an on-site  
12 evapotranspiration controller.

13 (c) The commission shall authorize a new or existing  
14 irrigation system to have a remote evapotranspiration controller if  
15 the system:

16 (1) receives evapotranspiration data from a remote  
17 weather station located not more than five miles from the  
18 irrigation site; and

19 (2) includes an independent local rain and freeze  
20 shut-off device.

21 (d) This section does not apply to a new or existing  
22 irrigation system that distributes and conserves water in an area  
23 of not more than:

24 (1) 0.1 acres; or

25 (2) 0.2 acres if the irrigation system distributes  
26 nonpotable water.

27 (e) Not later than January 1, 2008, this state and each

1 political subdivision of this state must comply with this section.

2 Sec. 5.903. MANDATORY IRRIGATION SYSTEM EQUIPMENT  
3 ORDINANCE. (a) The commission shall require each political  
4 subdivision of this state to adopt a local ordinance that requires  
5 new irrigation systems to have evapotranspiration-based irrigation  
6 control systems and irrigation schedules based on climatic  
7 conditions, specific terrains and soil types, and other  
8 environmental conditions. The ordinance must include:

9 (1) a requirement that an irrigation system located in  
10 the political subdivision have an on-site evapotranspiration  
11 controller with:

12 (A) an independent rain and freeze shut-off  
13 device;

14 (B) technology to control irrigation runoff  
15 based on the amount of water necessary to sustain the landscaped  
16 area; and

17 (C) an irrigation schedule controller that has  
18 multiple cycle features to prevent irrigation runoff;

19 (2) references to local, state, and federal laws and  
20 regulations regarding standards for water-conserving irrigation  
21 equipment; and

22 (3) climate information for developing irrigation  
23 schedules.

24 (b) A political subdivision of this state shall adopt an  
25 ordinance as provided by Subsection (a) not later than January 1,  
26 2009. If a political subdivision does not adopt an ordinance by  
27 that date, the commission shall impose the requirements of this

1 section on new irrigation systems installed in the political  
2 subdivision.

3 Sec. 5.904. CERTAIN IRRIGATION SYSTEM EQUIPMENT REQUIRED.  
4 After January 1, 2011, an irrigation system may not be sold or  
5 installed in this state unless the irrigation system has an on-site  
6 evapotranspiration controller.

7 SECTION 2. Section 1903.053, Occupations Code, is amended  
8 by adding Subsections (d) and (e) to read as follows:

9 (d) Except as provided by Subsection (e), after January 1,  
10 2008, any installation of a new irrigation system or repair or  
11 alteration of an existing system must meet the standard for on-site  
12 evapotranspiration capabilities prescribed by Section 5.902(b),  
13 Water Code.

14 (e) This section applies to the repair or alteration of an  
15 existing irrigation system only if:

16 (1) the repair or alteration requires the replacement  
17 of the controller; or

18 (2) the irrigation system supplies water to a  
19 landscaped area for which the water usage is to be increased by more  
20 than 20 percent.

21 SECTION 3. This Act takes effect immediately if it receives  
22 a vote of two-thirds of all the members elected to each house, as  
23 provided by Section 39, Article III, Texas Constitution. If this  
24 Act does not receive the vote necessary for immediate effect, this  
25 Act takes effect September 1, 2007.

# HOUSE COMMITTEE REPORT

1<sup>st</sup> Printing

07 MAY -3 AM 1:36

HOUSE OF REPRESENTATIVES

By: Paxton, Cook of Navarro, Gallego, O'Day,  
et al.

H.B. No. 2299

Substitute the following for H.B. No. 2299:

By: Puente

C.S.H.B. No. 2299

## A BILL TO BE ENTITLED

### AN ACT

relating to equipment used for irrigation systems.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Chapter 5, Water Code, is amended by adding  
Subchapter S to read as follows:

#### SUBCHAPTER S. STANDARDS FOR IRRIGATION SYSTEM EQUIPMENT

##### Sec. 5.901. DEFINITIONS. In this subchapter:

(1) "Evapotranspiration" means the loss of water to  
evaporation and plant transpiration.

(2) "Evapotranspiration-based irrigation control"  
means an automatic irrigation control product that uses  
evapotranspiration data based on climatic conditions and other data  
to make daily adjustments to irrigation applications so as to  
conserve water by applying irrigation only in an amount necessary  
to sustain the healthy growth of plants in a landscaped area.

(3) "Irrigation application" means the duration,  
frequency, and time of irrigation.

(4) "Irrigation runoff" means surface runoff of water  
generated when the irrigation application rate exceeds the soil  
infiltration rate and moisture saturation level.

(5) "Irrigation system" has the meaning assigned by  
Section 1903.001, Occupations Code.

(6) "Smart irrigation controller" means an automatic  
irrigation control product that uses actual soil moisture sensing,

1 an evapotranspiration-based irrigation control, or other  
2 technology to make periodic adjustments to irrigation applications  
3 so as to conserve water by applying irrigation only in an amount  
4 necessary to sustain the healthy growth of plants in a landscaped  
5 area.

6 Sec. 5.902. MINIMUM STANDARDS GOVERNING CERTAIN IRRIGATION  
7 SYSTEM EQUIPMENT. (a) This section applies only to an irrigation  
8 system owned by this state or a political subdivision of this state.

9 (b) The commission shall require a new or existing  
10 irrigation system to have a smart irrigation controller that:

11 (1) receives evapotranspiration data in a manner  
12 prescribed by commission rule; and

13 (2) includes an independent local rain and freeze  
14 shut-off device.

15 (c) This section does not apply to an existing irrigation  
16 system if the cost of installing a smart irrigation controller will  
17 exceed the amount of money saved by the installation over a period  
18 of one year.

19 (d) The commission shall establish guidelines to assist  
20 political subdivisions in determining for purposes of Subsection  
21 (c) whether the cost of installing a smart irrigation controller  
22 will exceed the amount of money saved by the installation.

23 (e) Not later than June 1, 2009, this state and each  
24 political subdivision of this state must comply with this section.

25 Sec. 5.903. MANDATORY IRRIGATION SYSTEM EQUIPMENT  
26 ORDINANCE. (a) The commission shall develop a model ordinance for  
27 use by each political subdivision of this state that requires new

irrigation systems to have smart irrigation controls based on climatic conditions, specific terrains and soil types, and other environmental conditions. The ordinance must include:

(1) a requirement that an irrigation system located in the political subdivision have a smart irrigation controller with:

(A) an independent rain and freeze shut-off device; and

(B) the capability of automatically controlling irrigation runoff based on the irrigation application rate, soil types, and terrains of the landscaped area;

(2) the minimum requirements that must be met to comply with this section for controllers based on various technologies, including:

(A) the manner in which evapotranspiration-based irrigation controls receive data;

(B) the frequency with which controllers based on various technologies must collect data; and

(C) the manner in which the political subdivision must verify the compliance of controllers based on subscription-based technologies;

(3) a requirement that the political subdivision withhold a certificate of occupancy for a residential or commercial structure until the political subdivision determines that the irrigation system used by the structure complies with the ordinance;

(4) a requirement that, before the effective date of a contract binding a purchaser to purchase residential or commercial

1 property that has an irrigation system, the purchaser or seller, or  
2 both, must ensure that the irrigation system complies with the  
3 ordinance;

4 (5) references to local, state, and federal laws and  
5 regulations regarding standards for water-conserving irrigation  
6 equipment; and

7 (6) climate information for developing irrigation  
8 applications.

9 (b) A political subdivision of this state shall adopt an  
10 ordinance that meets or exceeds the requirements provided by  
11 Subsection (a) not later than June 1, 2009. If a political  
12 subdivision does not adopt an ordinance by that date, the political  
13 subdivision shall adopt the model ordinance described by Subsection  
14 (a).

15 (c) This section does not apply to a political subdivision  
16 that does not have authority under other law to adopt or enforce an  
17 ordinance described by Subsection (b).

18 Sec. 5.904. CERTAIN IRRIGATION SYSTEM EQUIPMENT REQUIRED.

19 (a) After January 1, 2011, an irrigation controller may not be sold  
20 or installed in this state unless the irrigation controller is a  
21 smart irrigation controller.

22 (b) The commission shall require each new or existing  
23 irrigation system to have a smart irrigation controller that  
24 includes an independent local rain and freeze shut-off device.

25 SECTION 2. Section 1903.053, Occupations Code, is amended  
26 by adding Subsections (d) and (e) to read as follows:

27 (d) Except as provided by Subsection (e), after June 1,



1 2009, any installation of a new irrigation system or repair or  
2 alteration of an existing system must meet the standard for smart  
3 irrigation controller capabilities prescribed by Section 5.902(b),  
4 Water Code.

5 (e) This section applies to the repair or alteration of an  
6 existing irrigation system only if:

7 (1) the repair or alteration requires the replacement  
8 of the controller; or

9 (2) the irrigation system supplies water to a  
10 landscaped area that is to be increased by more than 20 percent.

11 SECTION 3. Not later than June 1, 2008, the Texas Commission  
12 on Environmental Quality shall adopt rules necessary to implement  
13 Subchapter S, Chapter 5, Water Code, and Sections 1903.053(d) and  
14 (e), Occupations Code, as added by this Act.

15 SECTION 4. This Act takes effect immediately if it receives  
16 a vote of two-thirds of all the members elected to each house, as  
17 provided by Section 39, Article III, Texas Constitution. If this  
18 Act does not receive the vote necessary for immediate effect, this  
19 Act takes effect September 1, 2007.

# COMMITTEE REPORT

The Honorable Tom Craddick  
Speaker of the House of Representatives

4/25/07  
(date)

Sir:

We, your **COMMITTEE ON NATURAL RESOURCES**

to whom was referred HB 2299 have had the same under consideration and beg to report back with the recommendation that it

- ☐ do pass, without amendment.  
☐ do pass, with amendment(s).  
☒ do pass and be not printed; a Complete Committee Substitute is recommended in lieu of the original measure.  
☒ yes ☐ no A fiscal note was requested.  
☐ yes ☒ no A criminal justice policy impact statement was requested.  
☐ yes ☒ no An equalized educational funding impact statement was requested.  
☐ yes ☒ no An actuarial analysis was requested.  
☐ yes ☒ no A water development policy impact statement was requested.  
☐ yes ☒ no A tax equity note was requested.  
☐ The Committee recommends that this measure be sent to the Committee on Local and Consent Calendars.

For Senate Measures: House Sponsor \_\_\_\_\_

Joint Sponsors: \_\_\_\_\_

Co-Sponsors: \_\_\_\_\_

The measure was reported from Committee by the following vote:

	AYE	NAY	PNV	ABSENT
Puente, Chair	X			
Hamilton, Vice-chair				X
Gattis, CBO		X		
Creighton		X		
Gallego	X			
Guillen	X			
Hilderbran	X			
Laubenberg				X
O'Day	X			

Total

5 aye  
2 nay  
0 present, not voting  
2 absent

CHAIR

*ALTANT*

## **BILL ANALYSIS**

C.S.H.B. 2299  
By: Paxton  
Natural Resources  
Committee Report (Substituted)

### **BACKGROUND AND PURPOSE**

Because of the rapid growth in population in Texas, and the frequency of drought conditions, the state faces ongoing water shortages, continuous rationing, and significant concerns about the sustainability of our economic development. While the development of new water sources is being pursued, water conservation must be an integral party of our state's water plan.

Irrigation systems are one area in which the state can conserve significant amounts of water. During a typical warm month between 60 and 70% of residential water use goes toward watering the lawn. According to industry estimates, as much as 50% of that water is wasted. Because of advances in technology, "smart irrigation controllers" have become a reasonable expense for the average homeowner and commercial property owner, and these controllers can dramatically reduce the amount of water wasted.

The purpose of C.S.H.B. 2299 is to propel the widespread implementation of smart irrigation controllers through a combination of mandated changes in municipal building codes and an eventual ban on the sale of old-style 'dummy' controllers.

### **RULEMAKING AUTHORITY**

It is the committee's opinion that rulemaking authority is expressly granted to the Texas Commission on Environmental Quality in SECTION 1 and SECTION 3 of this bill.

### **ANALYSIS**

SECTION 1. Amends Chapter 5, Water Code, by adding Subchapter S as follows:

Section 5.901. Defines the following terms: evapotranspiration, evapotranspiration-based irrigation control, irrigation application, irrigation runoff, irrigation system, and smart irrigation controller.

Section 5.902. MINIMUM STANDARDS GOVERNING CERTAIN IRRIGATION SYSTEM EQUIPMENT.

(a) Provides that this section applies only to an irrigation system owned by this state or a political subdivision of this state.

(b) Provides that the Texas Commission on Environmental Quality "the commission" require a new or existing irrigation system to have a smart irrigation controller that:

(1) receives evapotranspiration data in a manner prescribed by commission rule; and

(2) includes an independent local rain and freeze shut-off device.

(c) Exempts an existing irrigation system if the cost of installing a smart irrigation controller exceeds the amount of money saved by the installation over a period of one year.

(d) Requires the commission to establish guidelines to assist political subdivisions in determining for purposes of Subsection (c) whether the cost of installing a smart irrigation controller will exceed the amount of money saved by the installation.

(e) Provides that not later than June 1, 2009, this state and each political subdivision of this state must comply with this section.

#### **Section 5.903. MANDATORY IRRIGATION SYSTEM EQUIPMENT ORDINANCE.**

(a) Requires the commission to develop a model ordinance for use by each political subdivision of this state that requires new irrigation systems to have smart irrigation controls based on climatic and other conditions. Provides that the ordinance include:

(1) a requirement that an irrigation system located in the political subdivision have a smart irrigation controller with certain features;

(2) the minimum requirements that must be met to comply with this section for controllers based on various technologies;

(3) a requirement that the political subdivision withhold a certificate of occupancy for a residential or commercial structure until the political subdivision determines that the irrigation system used by the structure complies with the ordinance;

(4) a requirement that, before the effective date of a contract binding a purchaser to purchase residential or commercial property that has an irrigation system, the purchaser or seller, or both, must ensure that the irrigation system complies with the ordinance;

(5) references the local, state, and federal laws and regulations regarding standards for water-conserving irrigation equipment; and

(6) climate information for developing irrigation applications.

(b) Requires a political subdivision of this state to adopt an ordinance that meets or exceeds the requirements provided by Subsection (a) not later than June 1, 2009. If a political subdivision does not adopt an ordinance by January 1, 2009, the political subdivision is required to adopt the model ordinance described in Subsection (a).

(c) The section does not apply to a political subdivision that does not have authority under other law to adopt or enforce an ordinance described by Subsection (b).

#### **Sec. 5.904. CERTAIN IRRIGATION SYSTEM EQUIPMENT REQUIRED.**

(a) Prohibits the sale or installation of an irrigation controller in this state after January 1, 2011 unless the irrigation controller is a smart irrigation controller.

(b) Requires that the commission require each new or existing irrigation system to have a smart irrigation controller that includes an independent local rain and freeze shut-off device.

**SECTION 2.** Amends Section 1903.053, Occupations Code, by adding Subsections (d) and (e) as follows:

(d) provides that, except as provided by Subsection (e) any new installation or repair or alteration of an existing system, after June 1, 2009, must meet the standard for smart irrigation controller capabilities as prescribed by Section 5.902(b), Water Code.

(e) This section applies to the repair or alteration of an existing irrigation system only if the repair or alteration requires the replacement of the controller or the irrigation system supplies water to a landscaped area that is to be increased by more than 20 percent.

SECTION 3. Not later than June 1, 2008, the Texas Commission on Environmental Quality is required to adopt rules necessary to implement Subchapter S, Chapter 5, Water Code, and Sections 1903.053 (d) and (e), Occupations Code, as added by this Act.

SECTION 4. Effective Date: Upon passage, or, if the Act does not receive the necessary vote, the Act takes effect September 1, 2007.

#### **EFFECTIVE DATE**

Upon passage, or, if the Act does not receive the necessary vote, the Act takes effect September 1, 2007.

#### **COMPARISON OF ORIGINAL TO SUBSTITUTE**

The substitute deletes definitions of irrigation schedule and on-site evapotranspiration, remote evapotranspiration, and runoff control and inserts a definition for irrigation application and smart irrigation controller. The substitute removes all references to requiring on-site or remote evapotranspiration controllers and substitutes the more broadly defined term 'smart irrigation controller.'

The substitute replaces the standard to determine which irrigation systems owned by the state or political subdivision need to be retrofitted or originally designed as required by Subchapter S, Chapter 5, Water Code, instructs the commission to develop guidelines for them to use in making that determination, and gives the political subdivisions additional time to comply with the statute. The substitute also removes a provision in the introduced bill that exempted state or municipally owned irrigation systems that distribute water only to a small acreage.

The substitute alters the minimum requirements for the smart irrigation controllers in the model ordinance which must be adopted by political subdivisions and adds more components to that model ordinance including a requirement that certificates of occupancy cannot be granted until the political subdivision determines that the irrigation system is in compliance and existing properties cannot be sold until the irrigation system is in compliance. It also clarifies the intent of the language requiring all controllers sold or installed after January 1, 2011 to be smart controllers.

The substitute alters deadlines in the bill extending the time local governments have to retrofit their irrigation systems and to adopt an ordinance, and the deadline for when licensed installers must begin installing only smart controllers.

Finally, the substitute provides that not later than June 1, 2008, instead of January 1, 2008, as in the introduced bill, the Texas Commission on Environmental Quality is required to adopt rules necessary to implement Subchapter S, Chapter 5, Water Code, and Sections 1903.053 (d) and (e), Occupations Code, as added by this Act.

## SUMMARY OF COMMITTEE ACTION

HB 2299

April 04, 2007 2:00 PM or upon final adjourn./recess

Considered in public hearing

Committee substitute considered in committee

Testimony taken in committee (See attached witness list.)

Left pending in committee

April 25, 2007 2:30 PM or upon final adjourn./recess

Considered in public hearing

Committee substitute considered in committee

Reported favorably as substituted

4  
x

WITNESS LIST

HB 2299

HOUSE COMMITTEE REPORT

Natural Resources Committee

April 4, 2007 - 2:00 PM or upon final adjourn./recess

For: Christensen, Doug (Self and Accord Irrigation Technologies)

Against: Wilde, Will (City of San Angelo)

Registering, but not testifying:

For: Hall, Amy (ET Water Systems, LLC)

Against: Gonzalez, Juan R. (Green Industry Alliance)

Igo, Shanna (Texas Municipal League)

On: Franco, Tony (Texas Commission on Environmental Quality (TCEQ))

- Committee Substitute (Puente)

For: Andreen, Rick (Self and Shea Homes Inc.)

Bruner, Brodie (Weathermatic)

Hill, John Scott (Self)

Mason, Mike (Weathermatic)

Starr, Rob (The TORO Company)

Wingfield, John (Self)

Against: Cotti, Robert F. (City Council of City of Rockwall)

Griggs, Brad (Self and Texas Recreation & Park Society (TRAPS))

Massey, Michael (Self and Texas Municipal League)

Wilde, Will (City of San Angelo)

On: Baker, Carole D. (Harris-Galveston Subsidence District)

Guz, Karen (San Antonio Water System)

Reaves, Jim (Texas Nursery and Landscape Association)

Registering, but not testifying:

For: Valdez, Jerry (North Texas Municipal Water District)

**LEGISLATIVE BUDGET BOARD**  
**Austin, Texas**

**FISCAL NOTE, 80TH LEGISLATIVE REGULAR SESSION**

**April 27, 2007**

**TO:** Honorable Robert Puente, Chair, House Committee on Natural Resources

**FROM:** John S. O'Brien, Director, Legislative Budget Board

**IN RE:** HB2299 by Paxton (Relating to equipment used for irrigation systems. ), Committee Report 1st House, Substituted

<b>No significant fiscal implication to the State is anticipated.</b>
---

The bill would establish minimum standards for irrigation systems owned by the state or a political subdivision of the state. The bill would add definitions applying to irrigation systems, require political subdivisions to adopt ordinances regarding minimum standards for irrigation system equipment, and establish deadlines for the state and political subdivisions to demonstrate compliance with the standards set forth in the bill. Specifically the bill would require ordinances for qualifying irrigations systems to require an smart irrigation controls, an independent local rain and freeze shut-off device, and an the capability that the Texas Commission on Environmental Quality (TCEQ) established guidelines to exempt systems owned by the state or political subdivisions, if the cost to install smart controls exceeds water cost savings. The bill would also specify under which circumstances some irrigation systems would be exempt from complying with the proposed requirements, and it would specify that after January 1, 2011 irrigation systems sold or installed in the state must have smart controllers.

The TCEQ expects that it would receive inquiries from the 254 county governments, over 1,000 municipal governments, and over 2,000 special districts affected by the bill. In addition, if adequate ordinances would not adopted by a number of political subdivisions, the agency might be required to verify local compliance with the model ordinance. However, this estimate assumes that any related resource requirements would not be significant to the agency.

State agencies that own landscape irrigation systems may be required to incur retrofitting costs estimated to range from \$1,000 to \$10,000, depending on system size, to install smart controllers if their systems are not already compatible with the bill's requirements. It is assumed any costs to install smart controllers would be offset by the cost savings for water use.

**Local Government Impact**

Local governments would be required to adopt ordinances as specified by the bill. Local governments that would be required to retrofit landscaping irrigation systems with smart controllers could incur costs associated with retrofitting irrigation systems. The TCEQ estimates such costs to range from \$1,000 to \$10,000 depending on the size of a system.

Local governments could also incur expenses because they would need to verify that existing systems comply with revised ordinances for irrigation systems. In some cases, political subdivisions would have to withhold certificates of occupancy for a residential or commercial structure until there is verification that the irrigation system associated with the structure is shown to be in compliance. Those political subdivisions that have current irrigation ordinances and enforcement procedures may have to modify their programs. Those without an existing irrigation ordinance may be required to contract for services to cover the assumed responsibilities and duties associated with the bill.



**Source Agencies:** 582 Commission on Environmental Quality, 592 Soil and Water Conservation Board  
**LBB Staff:** JOB, WK, TL

**LEGISLATIVE BUDGET BOARD**

**Austin, Texas**

**FISCAL NOTE, 80TH LEGISLATIVE REGULAR SESSION**

**April 2, 2007**

**TO:** Honorable Robert Puente, Chair, House Committee on Natural Resources

**FROM:** John S. O'Brien, Director, Legislative Budget Board

**IN RE: HB2299** by Paxton (Relating to equipment used for irrigation systems.), **As Introduced**

**No significant fiscal implication to the State is anticipated.**

The bill would establish minimum standards for irrigation systems owned by the state or a political subdivision of the state. The bill would add definitions applying to irrigation systems, require political subdivisions to adopt ordinances regarding minimum standards for irrigation system equipment, and establish deadlines for the state and political subdivisions to demonstrate compliance with the standards set forth in the bill. Specifically the bill would require ordinances for qualifying irrigations systems to require an on-site or a remote evapotranspiration controller, an independent local rain and freeze shut-off device, and an irrigation schedule controller that includes features to prevent irrigation runoff. The bill would also specify under which circumstances some irrigation systems would be exempt from complying with the proposed requirements and specifies that after January 1, 2011 irrigation systems sold or installed in the state must have on-site evapotranspiration controllers.

The Texas Commission on Environmental Quality (TCEQ) expects that it would receive inquiries from the 254 county governments, over 1,000 municipal governments, and over 2,000 special districts affected by the bill. In addition, if adequate ordinances would not be adopted by a number of political subdivisions, the agency might require additional field office staff to perform inspections and ensure compliance with the proposed legislation. However, this estimate assumes that any such resource requirements would not be significant to the agency.

**Local Government Impact**

Local governments would be required to adopt ordinances as specified by the bill. Local governments that would be required to retrofit landscaping irrigation systems with evapotranspiration controllers could incur costs associated with retrofitting irrigation systems. The TCEQ estimates such costs to range from \$1,000 to \$10,000 depending on the size of a system.

**Source Agencies:** 582 Commission on Environmental Quality, 592 Soil and Water Conservation Board

**LBB Staff:** JOB, WK, TL

RECOMMITTED  
**HOUSE**  
**COMMITTEE REPORT**

1<sup>st</sup> Printing

07 MAY -7 PM 11:38

HOUSE OF REPRESENTATIVES

By: Paxton, Cook of Navarro, Gallego, O'Day,  
et al.

H.B. No. 2299

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By: Puente

C.S.H.B. No. 2299

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(2) "Evapotranspiration-based irrigation control"  
means an automatic irrigation control product that uses  
evapotranspiration data based on climatic conditions and other data  
to make daily adjustments to irrigation applications so as to  
conserve water by applying irrigation only in an amount necessary  
to sustain the healthy growth of plants in a landscaped area.

(3) "Irrigation application" means the duration,  
frequency, and time of irrigation.

(4) "Irrigation runoff" means surface runoff of water  
generated when the irrigation application rate exceeds the soil  
infiltration rate and moisture saturation level.

(5) "Irrigation system" has the meaning assigned by  
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(6) "Smart irrigation controller" means an automatic  
irrigation control product that uses actual soil moisture sensing,

1 an evapotranspiration-based irrigation control, or other  
2 technology to make periodic adjustments to irrigation applications  
3 so as to conserve water by applying irrigation only in an amount  
4 necessary to sustain the healthy growth of plants in a landscaped  
5 area.

6 Sec. 5.902. MINIMUM STANDARDS GOVERNING CERTAIN IRRIGATION  
7 SYSTEM EQUIPMENT. (a) This section applies only to an irrigation  
8 system owned by this state or a political subdivision of this state.

9 (b) The commission shall require a new or existing  
10 irrigation system to have a smart irrigation controller that:

11 (1) receives evapotranspiration data in a manner  
12 prescribed by commission rule; and

13 (2) includes an independent local rain and freeze  
14 shut-off device.

15 (c) This section does not apply to an existing irrigation  
16 system if the cost of installing a smart irrigation controller will  
17 exceed the amount of money saved by the installation over a period  
18 of one year.

19 (d) The commission shall establish guidelines to assist  
20 political subdivisions in determining for purposes of Subsection  
21 (c) whether the cost of installing a smart irrigation controller  
22 will exceed the amount of money saved by the installation.

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24 political subdivision of this state must comply with this section.

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irrigation systems to have smart irrigation controls based on climatic conditions, specific terrains and soil types, and other environmental conditions. The ordinance must include:

(1) a requirement that an irrigation system located in the political subdivision have a smart irrigation controller with:

(A) an independent rain and freeze shut-off device; and

(B) the capability of automatically controlling irrigation runoff based on the irrigation application rate, soil types, and terrains of the landscaped area;

(2) the minimum requirements that must be met to comply with this section for controllers based on various technologies, including:

(A) the manner in which evapotranspiration-based irrigation controls receive data;

(B) the frequency with which controllers based on various technologies must collect data; and

(C) the manner in which the political subdivision must verify the compliance of controllers based on subscription-based technologies;

(3) a requirement that the political subdivision withhold a certificate of occupancy for a residential or commercial structure until the political subdivision determines that the irrigation system used by the structure complies with the ordinance;

(4) a requirement that, before the effective date of a contract binding a purchaser to purchase residential or commercial

1 property that has an irrigation system, the purchaser or seller, or  
2 both, must ensure that the irrigation system complies with the  
3 ordinance;

4 (5) references to local, state, and federal laws and  
5 regulations regarding standards for water-conserving irrigation  
6 equipment; and

7 (6) climate information for developing irrigation  
8 applications.

9 (b) A political subdivision of this state shall adopt an  
10 ordinance that meets or exceeds the requirements provided by  
11 Subsection (a) not later than June 1, 2009. If a political  
12 subdivision does not adopt an ordinance by that date, the political  
13 subdivision shall adopt the model ordinance described by Subsection  
14 (a).

15 (c) This section does not apply to a political subdivision  
16 that does not have authority under other law to adopt or enforce an  
17 ordinance described by Subsection (b).

18 Sec. 5.904. CERTAIN IRRIGATION SYSTEM EQUIPMENT REQUIRED.

19 (a) After January 1, 2011, an irrigation controller may not be sold  
20 or installed in this state unless the irrigation controller is a  
21 smart irrigation controller.

22 (b) The commission shall require each new or existing  
23 irrigation system to have a smart irrigation controller that  
24 includes an independent local rain and freeze shut-off device.

25 SECTION 2. Section 1903.053, Occupations Code, is amended  
26 by adding Subsections (d) and (e) to read as follows:

27 (d) Except as provided by Subsection (e), after June 1,

1 2009, any installation of a new irrigation system or repair or  
2 alteration of an existing system must meet the standard for smart  
3 irrigation controller capabilities prescribed by Section 5.902(b),  
4 Water Code.

5 (e) This section applies to the repair or alteration of an  
6 existing irrigation system only if:

7 (1) the repair or alteration requires the replacement  
8 of the controller; or

9 (2) the irrigation system supplies water to a  
10 landscaped area that is to be increased by more than 20 percent.

11 SECTION 3. Not later than June 1, 2008, the Texas Commission  
12 on Environmental Quality shall adopt rules necessary to implement  
13 Subchapter S, Chapter 5, Water Code, and Sections 1903.053(d) and  
14 (e), Occupations Code, as added by this Act.

15 SECTION 4. This Act takes effect immediately if it receives  
16 a vote of two-thirds of all the members elected to each house, as  
17 provided by Section 39, Article III, Texas Constitution. If this  
18 Act does not receive the vote necessary for immediate effect, this  
19 Act takes effect September 1, 2007.

COMMITTEE REPORT

The Honorable Tom Craddick  
Speaker of the House of Representatives

5/7/07  
(date)

Sir:

We, your COMMITTEE ON NATURAL RESOURCES

to whom was referred HB 2299 have had the same under consideration and beg to report back with the recommendation that it

- ( ) do pass, without amendment.
- ( ) do pass, with amendment(s).
- (X) do pass and be not printed; a Complete Committee Substitute is recommended in lieu of the original measure.
- (X) yes ( ) no A fiscal note was requested.
- ( ) yes (X) no A criminal justice policy impact statement was requested.
- ( ) yes (X) no An equalized educational funding impact statement was requested.
- ( ) yes (X) no An actuarial analysis was requested.
- ( ) yes (X) no A water development policy impact statement was requested.
- ( ) yes (X) no A tax equity note was requested.
- ( ) The Committee recommends that this measure be sent to the Committee on Local and Consent Calendars.

For Senate Measures: House Sponsor

Joint Sponsors:

Co-Sponsors:

The measure was reported from Committee by the following vote:

	AYE	NAY	PNV	ABSENT
Puente, Chair	X			
Hamilton, Vice-chair	X			
Gattis, CBO		X		
Creighton				X
Gallego	X			
Guillen	X			
Hilderbran				X
Laubenberg	X			
O'Day				X

Total 5 aye  
1 nay  
0 present, not voting  
3 absent

Mitchell  
CHAIR



## **BILL ANALYSIS**

C.S.H.B. 2299  
By: Paxton  
Natural Resources  
Committee Report (Substituted)

### **BACKGROUND AND PURPOSE**

Because of the rapid growth in population in Texas, and the frequency of drought conditions, the state faces ongoing water shortages, continuous rationing, and significant concerns about the sustainability of our economic development. While the development of new water sources is being pursued, water conservation must be an integral party of our state's water plan.

Irrigation systems are one area in which the state can conserve significant amounts of water. During a typical warm month between 60 and 70% of residential water use goes toward watering the lawn. According to industry estimates, as much as 50% of that water is wasted. Because of advances in technology, "smart irrigation controllers" have become a reasonable expense for the average homeowner and commercial property owner, and these controllers can dramatically reduce the amount of water wasted.

The purpose of C.S.H.B. 2299 is to propel the widespread implementation of smart irrigation controllers through a combination of mandated changes in municipal building codes and an eventual ban on the sale of old-style 'dummy' controllers.

### **RULEMAKING AUTHORITY**

It is the committee's opinion that rulemaking authority is expressly granted to the Texas Commission on Environmental Quality in SECTION 1 and SECTION 3 of this bill.

### **ANALYSIS**

SECTION 1. Amends Chapter 5, Water Code, by adding Subchapter S as follows:

Section 5.901. DEFINITIONS. Defines the following terms: evapotranspiration, evapotranspiration-based irrigation control, irrigation application, irrigation runoff, irrigation system, and smart irrigation controller.

Section 5.902. MINIMUM STANDARDS GOVERNING CERTAIN IRRIGATION SYSTEM EQUIPMENT.

(a) Provides that this section applies only to an irrigation system owned by this state or a political subdivision of this state.

(b) Provides that the Texas Commission on Environmental Quality (the commission) require a new or existing irrigation system to have a smart irrigation controller that:

(1) receives evapotranspiration data in a manner prescribed by commission rule; and

(2) includes an independent local rain and freeze shut-off device.

(c) Exempts an existing irrigation system if the cost of installing a smart irrigation controller exceeds the amount of money saved by the installation over a period of one year.

(d) Requires the commission to establish guidelines to assist political subdivisions in determining for purposes of Subsection (c) whether the cost of installing a smart irrigation controller will exceed the amount of money saved by the installation.

(e) Provides that not later than June 1, 2009, this state and each political subdivision of this state must comply with this section.

#### **Section 5.903. MANDATORY IRRIGATION SYSTEM EQUIPMENT ORDINANCE.**

(a) Requires the commission to develop a model ordinance for use by each political subdivision of this state that requires new irrigation systems to have smart irrigation controls based on climatic conditions, specific terrains and soil types, and other environmental conditions. Provides that the ordinance include:

- (1) a requirement that an irrigation system located in the political subdivision have a smart irrigation controller with certain features;
- (2) the minimum requirements that must be met to comply with this section for controllers based on various technologies, including certain enumerated technologies;
- (3) a requirement that the political subdivision withhold a certificate of occupancy for a residential or commercial structure until the political subdivision determines that the irrigation system used by the structure complies with the ordinance;
- (4) a requirement that, before the effective date of a contract binding a purchaser to purchase residential or commercial property that has an irrigation system, the purchaser or seller, or both, must ensure that the irrigation system complies with the ordinance;
- (5) references the local, state, and federal laws and regulations regarding standards for water-conserving irrigation equipment; and
- (6) climate information for developing irrigation applications.

(b) Requires a political subdivision of this state to adopt an ordinance that meets or exceeds the requirements provided by Subsection (a) not later than June 1, 2009. If a political subdivision does not adopt an ordinance by that date, the political subdivision is required to adopt the model ordinance described in Subsection (a).

(c) The section does not apply to a political subdivision that does not have authority under other law to adopt or enforce an ordinance described by Subsection (b).

#### **Sec. 5.904. CERTAIN IRRIGATION SYSTEM EQUIPMENT REQUIRED.**

(a) Prohibits the sale or installation of an irrigation controller in this state after January 1, 2011 unless the irrigation controller is a smart irrigation controller.

(b) Requires that the commission require each new or existing irrigation system to have a smart irrigation controller that includes an independent local rain and freeze shut-off device.

**SECTION 2.** Amends Section 1903.053, Occupations Code, by adding Subsections (d) and (e) as follows:

2

(d) provides that, except as provided by Subsection (e) any new installation or repair or alteration of an existing system, after June 1, 2009, must meet the standard for smart irrigation controller capabilities as prescribed by Section 5.902(b), Water Code.

(e) This section applies to the repair or alteration of an existing irrigation system only if the repair or alteration requires the replacement of the controller or the irrigation system supplies water to a landscaped area that is to be increased by more than 20 percent.

SECTION 3. Not later than June 1, 2008, the Texas Commission on Environmental Quality is required to adopt rules necessary to implement Subchapter S, Chapter 5, Water Code, and Sections 1903.053 (d) and (e), Occupations Code, as added by this Act.

SECTION 4. Effective Date: Upon passage, or, if the Act does not receive the necessary vote, the Act takes effect September 1, 2007.

#### **EFFECTIVE DATE**

Upon passage, or, if the Act does not receive the necessary vote, the Act takes effect September 1, 2007.

#### **COMPARISON OF ORIGINAL TO SUBSTITUTE**

The substitute deletes definitions of irrigation schedule and on-site evapotranspiration, remote evapotranspiration, and runoff control and inserts a definition for irrigation application and smart irrigation controller. The substitute, in the definition of evapotranspiration-based irrigation control, references evapotranspiration data based on climatic conditions and other data to make daily adjustments to irrigation applications, rather than seasonal adjustments to irrigation schedules, as stated in the introduced bill. The substitute removes all references to requiring on-site or remote evapotranspiration controllers and substitutes the more broadly defined term 'smart irrigation controller.'

The substitute replaces the standard to determine which irrigation systems owned by the state or political subdivision need to be retrofitted or originally designed as required by Subchapter S, Chapter 5, Water Code, instructs the commission to develop guidelines for them to use in making that determination, and gives the political subdivisions additional time to comply with the statute. The substitute also removes a provision in the introduced bill that exempted state or municipally owned irrigation systems that distribute water only to a small acreage.

The substitute alters the minimum requirements for the smart irrigation controllers in a model ordinance, developed by the commission for use by political subdivisions, and adds more components to the model ordinance including a requirement that certificates of occupancy cannot be granted until the political subdivision determines that the irrigation system is in compliance and existing properties cannot be sold until the irrigation system is in compliance. It also clarifies the intent of the language requiring all controllers sold or installed after January 1, 2011 to be smart irrigation controllers, requiring each new or existing irrigation system to have a smart irrigation controller that includes an independent local rain and freeze shut-off device.

The substitute requires a political subdivision to adopt an ordinance that meets or exceeds the requirements provided by this bill, not later than June 1, 2009. If a political subdivision does not adopt an ordinance by that date, the political subdivision is required to adopt the model ordinance described by this bill.

The substitute provides that the provisions relating to a mandatory ordinance do not apply to a political subdivision that does not have authority under other law to adopt or enforce an ordinance.

The substitute alters deadlines in the bill, extending the time for state or political subdivisions to install or retrofit with respect to government-owned irrigation systems and for political subdivisions to adopt an ordinance, and the deadline for when licensed installers must begin installing or retrofitting only smart irrigation controllers.

Finally, the substitute provides that not later than June 1, 2008 the Texas Commission on Environmental Quality is required to adopt rules necessary to implement Subchapter S, Chapter 5, Water Code, and Sections 1903.053 (d) and (e), Occupations Code, as added by this Act.

## SUMMARY OF COMMITTEE ACTION

HB 2299

May 07, 2007 upon lunch recess

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Considered in formal meeting

Committee substitute considered in committee

Reported favorably as substituted

5  
+

**LEGISLATIVE BUDGET BOARD**

**Austin, Texas**

**FISCAL NOTE, 80TH LEGISLATIVE REGULAR SESSION**

**Revision 1**

**May 7, 2007**

**TO: Honorable Robert Puente, Chair, House Committee on Natural Resources**

**FROM: John S. O'Brien, Director, Legislative Budget Board**

**IN RE: HB2299 by Paxton (Relating to equipment used for irrigation systems.), Committee Report  
1st House, Substituted**

**No significant fiscal implication to the State is anticipated.**

The bill would establish minimum standards for irrigation systems owned by the state or a political subdivision of the state. The bill would add definitions applying to irrigation systems, require political subdivisions to adopt ordinances regarding minimum standards for irrigation system equipment, and establish deadlines for the state and political subdivisions to demonstrate compliance with the standards set forth in the bill. Specifically the bill would require ordinances for qualifying irrigations systems to require an smart irrigation controls, an independent local rain and freeze shut-off device, and an the capability that the Texas Commission on Environmental Quality (TCEQ) established guidelines to exempt systems owned by the state or political subdivisions, if the cost to install smart controls exceeds water cost savings. The bill would also specify under which circumstances some irrigation systems would be exempt from complying with the proposed requirements, and it would specify that after January 1, 2011 irrigation systems sold or installed in the state must have smart controllers.

The TCEQ expects that it would receive inquires from the 254 county governments, over 1,000 municipal governments, and over 2,000 special districts affected by the bill. In addition, if adequate ordinances would not adopted by a number of political subdivisions, the agency might be required to verify local compliance with the model ordinance. However, this estimate assumes that any related resource requirements would not be significant to the agency.

State agencies that own landscape irrigation systems may be required to incur retrofitting costs estimated to range from \$1,000 to \$10,000, depending on system size, to install smart controllers if their systems are not already compatible with the bill's requirements. It is assumed any costs to install smart controllers would be offset by the cost savings for water use.

**Local Government Impact**

Local governments would be required to adopt ordinances as specified by the bill. Local governments that would be required to retrofit landscaping irrigation systems with smart controllers could incur costs associated with retrofitting irrigation systems. The TCEQ estimates such costs to range from \$1,000 to \$10,000 depending on the size of a system.

Local governments could also incur expenses because they would need to verify that existing systems comply with revised ordinances for irrigation systems. In some cases, political subdivisions would have to withhold certificates of occupancy for a residential or commercial structure until there is verification that the irrigation system associated with the structure is shown to be in compliance. Those political subdivisions that have current irrigation ordinances and enforcement procedures may have to modify their programs. Those without an existing irrigation ordinance may be required to contract for services to cover the assumed responsibilities and duties associated with the bill.

**Source Agencies:** 582 Commission on Environmental Quality, 592 Soil and Water Conservation Board  
**LBB Staff:** JOB, WK, TL

**LEGISLATIVE BUDGET BOARD**

**Austin, Texas**

**FISCAL NOTE, 80TH LEGISLATIVE REGULAR SESSION**

**April 27, 2007**

**TO: Honorable Robert Puente, Chair, House Committee on Natural Resources**

**FROM: John S. O'Brien, Director, Legislative Budget Board**

**IN RE: HB2299 by Paxton (Relating to equipment used for irrigation systems. ), Committee Report 1st House, Substituted**

**No significant fiscal implication to the State is anticipated.**

The bill would establish minimum standards for irrigation systems owned by the state or a political subdivision of the state. The bill would add definitions applying to irrigation systems, require political subdivisions to adopt ordinances regarding minimum standards for irrigation system equipment, and establish deadlines for the state and political subdivisions to demonstrate compliance with the standards set forth in the bill. Specifically the bill would require ordinances for qualifying irrigations systems to require an smart irrigation controls, an independent local rain and freeze shut-off device, and an the capability that the Texas Commission on Environmental Quality (TCEQ) established guidelines to exempt systems owned by the state or political subdivisions, if the cost to install smart controls exceeds water cost savings. The bill would also specify under which circumstances some irrigation systems would be exempt from complying with the proposed requirements, and it would specify that after January 1, 2011 irrigation systems sold or installed in the state must have smart controllers.

The TCEQ expects that it would receive inquires from the 254 county governments, over 1,000 municipal governments, and over 2,000 special districts affected by the bill. In addition, if adequate ordinances would not adopted by a number of political subdivisions, the agency might be required to verify local compliance with the model ordinance. However, this estimate assumes that any related resource requirements would not be significant to the agency.

State agencies that own landscape irrigation systems may be required to incur retrofitting costs estimated to range from \$1,000 to \$10,000, depending on system size, to install smart controllers if their systems are not already compatible with the bill's requirements. It is assumed any costs to install smart controllers would be offset by the cost savings for water use.

**Local Government Impact**

Local governments would be required to adopt ordinances as specified by the bill. Local governments that would be required to retrofit landscaping irrigation systems with smart controllers could incur costs associated with retrofitting irrigation systems. The TCEQ estimates such costs to range from \$1,000 to \$10,000 depending on the size of a system.

Local governments could also incur expenses because they would need to verify that existing systems comply with revised ordinances for irrigation systems. In some cases, political subdivisions would have to withhold certificates of occupancy for a residential or commercial structure until there is verification that the irrigation system associated with the structure is shown to be in compliance. Those political subdivisions that have current irrigation ordinances and enforcement procedures may have to modify their programs. Those without an existing irrigation ordinance may be required to contract for services to cover the assumed responsibilities and duties associated with the bill.



**Source Agencies:** 582 Commission on Environmental Quality, 592 Soil and Water Conservation Board  
**LBB Staff:** JOB, WK, TL

**LEGISLATIVE BUDGET BOARD**

**Austin, Texas**

**FISCAL NOTE, 80TH LEGISLATIVE REGULAR SESSION**

**Revision 1**

**May 7, 2007**

**TO: Honorable Robert Puente, Chair, House Committee on Natural Resources**

**FROM: John S. O'Brien, Director, Legislative Budget Board**

**IN RE: HB2299 by Paxton (Relating to equipment used for irrigation systems.), As Introduced**

**No significant fiscal implication to the State is anticipated.**

The bill would establish minimum standards for irrigation systems owned by the state or a political subdivision of the state. The bill would add definitions applying to irrigation systems, require political subdivisions to adopt ordinances regarding minimum standards for irrigation system equipment, and establish deadlines for the state and political subdivisions to demonstrate compliance with the standards set forth in the bill. Specifically the bill would require ordinances for qualifying irrigations systems to require an on-site or a remote evapotranspiration controller, an independent local rain and freeze shut-off device, and an irrigation schedule controller that includes features to prevent irrigation runoff. The bill would also specify under which circumstances some irrigation systems would be exempt from complying with the proposed requirements and specifies that after January 1, 2011 irrigation systems sold or installed in the state must have on-site evapotranspiration controllers.

The Texas Commission on Environmental Quality (TCEQ) expects that it would receive inquiries from the 254 county governments, over 1,000 municipal governments, and over 2,000 special districts affected by the bill. In addition, if adequate ordinances would not be adopted by a number of political subdivisions, the agency might require additional field office staff to perform inspections and ensure compliance with the proposed legislation. However, this estimate assumes that any such resource requirements would not be significant to the agency.

**Local Government Impact**

Local governments would be required to adopt ordinances as specified by the bill. Local governments that would be required to retrofit landscaping irrigation systems with evapotranspiration controllers could incur costs associated with retrofitting irrigation systems. The TCEQ estimates such costs to range from \$1,000 to \$10,000 depending on the size of a system.

**Source Agencies:** 582 Commission on Environmental Quality, 592 Soil and Water Conservation Board

**LBB Staff:** JOB, WK, TL

**LEGISLATIVE BUDGET BOARD**

**Austin, Texas**

**FISCAL NOTE, 80TH LEGISLATIVE REGULAR SESSION**

**April 2, 2007**

**TO: Honorable Robert Puente, Chair, House Committee on Natural Resources**

**FROM: John S. O'Brien, Director, Legislative Budget Board**

**IN RE: HB2299 by Paxton (Relating to equipment used for irrigation systems.), As Introduced**

**No significant fiscal implication to the State is anticipated.**

The bill would establish minimum standards for irrigation systems owned by the state or a political subdivision of the state. The bill would add definitions applying to irrigation systems, require political subdivisions to adopt ordinances regarding minimum standards for irrigation system equipment, and establish deadlines for the state and political subdivisions to demonstrate compliance with the standards set forth in the bill. Specifically the bill would require ordinances for qualifying irrigations systems to require an on-site or a remote evapotranspiration controller, an independent local rain and freeze shut-off device, and an irrigation schedule controller that includes features to prevent irrigation runoff. The bill would also specify under which circumstances some irrigation systems would be exempt from complying with the proposed requirements and specifies that after January 1, 2011 irrigation systems sold or installed in the state must have on-site evapotranspiration controllers.

The Texas Commission on Environmental Quality (TCEQ) expects that it would receive inquiries from the 254 county governments, over 1,000 municipal governments, and over 2,000 special districts affected by the bill. In addition, if adequate ordinances would not be adopted by a number of political subdivisions, the agency might require additional field office staff to perform inspections and ensure compliance with the proposed legislation. However, this estimate assumes that any such resource requirements would not be significant to the agency.

**Local Government Impact**

Local governments would be required to adopt ordinances as specified by the bill. Local governments that would be required to retrofit landscaping irrigation systems with evapotranspiration controllers could incur costs associated with retrofitting irrigation systems. The TCEQ estimates such costs to range from \$1,000 to \$10,000 depending on the size of a system.

**Source Agencies:** 582 Commission on Environmental Quality, 592 Soil and Water Conservation Board  
**LBB Staff:** JOB, WK, TL

for chief clerk use only

Bill or Resolution Number:

HB 2299

### JOINT AUTHOR AUTHORIZATION

As primary author of HB 2299 I hereby authorize the following joint author(s):  
(bill or resolution #)

Bryan Cook  
printed name of joint author #1

Bryan Cook  
signature of joint author #1

3-30-07

Mike P. Hallegre  
printed name of joint author #2

Mike P. Hallegre  
signature of joint author #2

4/3/07

Mike O'Day  
printed name of joint author #3

Mike O'Day  
signature of joint author #3

4-5-07

\_\_\_\_\_  
printed name of joint author #4

\_\_\_\_\_  
signature of joint author #4

Kim Payne  
signature of primary author

3/30/07  
date

80TH LEGISLATURE

COAUTHOR AUTHORIZATION

(please request your coauthors to sign this form  
in lieu of the front or the back of the original bill)

Bill or Resolution Number: HB 2299

Ken Paxton  
signature of primary author

KEN PAXTON  
printed name of primary author

MAR 01 2007  
Date

PERMISSION TO SIGN HB 2299 HAS BEEN GIVEN TO (check only one of the following):  
(bill or resolution #)

☒ ALL REPRESENTATIVES

☐ THE FOLLOWING REPRESENTATIVE(S): \_\_\_\_\_

I authorize the Chief Clerk to include my name as a coauthor of the legislation indicated above:

<u>A2100 Allen</u>	<u>Date</u>	<u>A2450 Cook, Byron</u>	<u>Date</u>	<u>A2795 Farabee</u>	<u>Date</u>
<u>A2125 Alonzo</u>	<u>Date</u>	<u>A2565 Cook, Robby</u>	<u>Date</u>	<u>A2820 Farias</u>	<u>Date</u>
<u>A2150 Anchia</u>	<u>Date</u>	<u>A2595 Corte</u>	<u>Date</u>	<u>A2810 Farrar</u>	<u>Date</u>
<u>A2155 Anderson</u>	<u>Date</u>	<u>A2605 Crabb</u>	<u>Date</u>	<u>A2840 Flores</u>	<u>Date</u>
<u>A2145 Aycock</u>	<u>Date</u>	<u>A2610 Craddick</u>	<u>Date</u>	<u>A2850 Flynn</u>	<u>Date</u>
<u>A2160 Bailey</u>	<u>Date</u>	<u>A2615 Creighton</u>	<u>Date</u>	<u>A2860 Frost</u>	<u>Date</u>
<u>A2205 Berman</u>	<u>Date</u>	<u>A2640 Crownover</u>	<u>Date</u>	<u>A2920 Gallego</u>	<u>Date</u>
<u>A2230 Bohac</u>	<u>Date</u>	<u>A2645 Darby</u>	<u>Date</u>	<u>A2915 Garcia</u>	<u>Date</u>
<u>A2240 Bolton</u>	<u>Date</u>	<u>A2620 Davis, John</u>	<u>Date</u>	<u>A2960 Gattis</u>	<u>Date</u>
<u>A2250 Bonnen</u>	<u>Date</u>	<u>A2625 Davis, Yvonne</u>	<u>Date</u>	<u>A2945 Geren</u>	<u>Date</u>
<u>A2280 Branch</u>	<u>Date</u>	<u>A2680 Delisi</u>	<u>Date</u>	<u>A2935 Giddings</u>	<u>Date</u>
<u>A2265 Brown, Betty</u>	<u>Date</u>	<u>A2690 Deshotel</u>	<u>Date</u>	<u>A2910 Gonzales</u>	<u>Date</u>
<u>A2270 Brown, Fred</u>	<u>Date</u>	<u>A2705 Driver</u>	<u>Date</u>	<u>A4660 Gonzalez Toureilles</u>	<u>Date</u>
<u>A2255 Burnam</u>	<u>Date</u>	<u>A2665 Dukes</u>	<u>Date</u>	<u>A2990 Goolsby</u>	<u>Date</u>
<u>A2295 Callegari</u>	<u>Date</u>	<u>A2660 Dunnam</u>	<u>Date</u>	<u>A3045 Guillen</u>	<u>Date</u>
<u>A2495 Castro</u>	<u>Date</u>	<u>A2650 Dutton</u>	<u>Date</u>	<u>A3035 Haggerty</u>	<u>Date</u>
<u>A2585 Chavez</u>	<u>Date</u>	<u>A2775 Eiland</u>	<u>Date</u>	<u>A3050 Hamilton</u>	<u>Date</u>
<u>A2480 Chisum</u>	<u>Date</u>	<u>A2780 Eissler</u>	<u>Date</u>	<u>A3100 Hancock</u>	<u>Date</u>
<u>A2525 Christian</u>	<u>Date</u>	<u>A2785 Elkins</u>	<u>Date</u>	<u>A3160 Hardcastle</u>	<u>Date</u>
<u>A2425 Cohen</u>	<u>Date</u>	<u>A2805 England</u>	<u>Date</u>	<u>A3150 Harless</u>	<u>Date</u>
<u>A2435 Coleman</u>	<u>Date</u>	<u>A2800 Escobar</u>	<u>Date</u>	<u>A3165 Harper-Brown</u>	<u>Date</u>

A3170 Hartnett	Date	A3730 Mallory Caraway	Date	A4200 Puente	Date
A3175 Heflin	Date	A3780 Martinez	Date	A4230 Quintanilla	Date
A3155 Hernandez	Date	A2835 Martinez Fischer	Date	A4215 Raymond	Date
A3140 Herrero	Date	A3665 McCall	Date	A4220 Riddle	Date
A3250 Hilderbran	Date	A3650 McClendon	Date	A4250 Ritter	Date
A3275 Hill	Date	A3845 McReynolds	Date	A4270 Rodriguez <i>PhR</i>	Date 4/1/19
A3305 Hochberg	Date	A3830 Menendez	Date	A4350 Rose	Date
A3290 Hodge	Date	A3840 Merritt	Date	A4525 Smith, Todd	Date
A3325 Homer	Date	A3825 Miles	Date	A4540 Smith, Wayne	Date
A3330 Hopson	Date	A3835 Miller	Date	A4530 Smithee	Date
A3315 Howard, Charlie	Date	A3860 Moreno	Date	A4505 Solomons	Date
A3310 Howard, Donna	Date	A3870 Morrison	Date	A4545 Strama	Date
A3340 Hughes	Date	A3865 Mowery	Date	A4565 Straus	Date
A3375 Isett	Date	A3875 Murphy	Date	A4570 Swinford	Date
A3350 Jackson	Date	A3885 Naishtat	Date	A4585 Talton	Date
A3405 Jones	Date	A3900 Noriega	Date	A4600 Taylor	Date
A3480 Keffer	Date	A3880 Oliveira	Date	A4630 Thompson	Date
A3470 King, Phil	Date	A3886 Olivo	Date	A4650 Truitt	Date
A3460 King, Susan	Date	A3930 Orr	Date	A4685 Turner	Date
A3465 King, Tracy	Date	A3940 Ortiz, Jr.	Date	A4700 Van Arsdale	Date
A3495 Kolkhorst	Date	A3945 Otto	Date	A4780 Vaught	Date
A3485 Krusee	Date	A4090 Parker	Date	A4725 Veasey	Date
A3450 Kuempel	Date	A4050 Patrick	Date	A4800 Villarreal	Date
A3520 Latham	Date	A4100 Paxton	Date	A4900 Vo	Date
A3540 Laubenberg	Date	A4140 Pena	Date	A4995 West	Date
A3560 Leibowitz	Date	A3240 Pierson	Date	A5005 Woolley	Date
A3610 Lucio, III	Date	A4160 Phillips	Date	A5150 Zedler	Date
A3705 Macias	Date	A4180 Pickett	Date	A5170 Zerwas	Date
A3715 Madden	Date	A4185 Pitts	Date	District 29	Date

H.B. No. 2299

By Ken Paxton

A BILL TO BE ENTITLED  
AN ACT

relating to equipment used for irrigation systems.

MAR 01 2007

Filed with the Chief Clerk

MAR 08 2007

Read first time and referred to Committee on Natural Resources

APR 25 2007

Reported favorably (~~as amended~~)  
(as substituted)

MAY 03 2007

Sent to Committee on (Calendars)  
(~~Local & General Calendars~~)

Read second time (comm. subst.) (amended); passed to third reading (failed) by a (non-record vote)  
(record vote of \_\_\_\_\_ yeas, \_\_\_\_\_ nays, \_\_\_\_\_ present, not voting)

Constitutional rule requiring bills to be read on three several days suspended (failed to suspend)  
by a vote of \_\_\_\_\_ yeas, \_\_\_\_\_ nays, \_\_\_\_\_ present, not voting

Read third time (amended); finally passed (failed to pass) by a (non-record vote)  
(record vote of \_\_\_\_\_ yeas, \_\_\_\_\_ nays, \_\_\_\_\_ present, not voting)

Engrossed

Sent to Senate

CHIEF CLERK OF THE HOUSE

OTHER HOUSE ACTION:

MAY - 7 2007

Recommitted to Committee

MAY 07 2007

Reported favorably (as substituted)

MAY - 8 2007

Sent to Committee on (Calendars) (~~Local & General Calendars~~)

Received from the House

Read and referred to Committee on \_\_\_\_\_

Reported favorably \_\_\_\_\_

Reported adversely, with favorable Committee Substitute; Committee Substitute read first time

Ordered not printed

Laid before the Senate

Senate and Constitutional Rules to permit consideration suspended by (unanimous consent)  
(\_\_\_\_\_ yeas, \_\_\_\_\_ nays)

Read second time, \_\_\_\_\_, and passed to third reading by (unanimous consent)  
(a viva voce vote)  
(\_\_\_\_\_ yeas, \_\_\_\_\_ nays)

Senate and Constitutional 3 Day Rules suspended by a vote of \_\_\_\_\_ yeas, \_\_\_\_\_ nays

Read third time, \_\_\_\_\_, and passed by a (viva voce vote)  
(\_\_\_\_\_ yeas, \_\_\_\_\_ nays)

Returned to the House

SECRETARY OF THE SENATE

OTHER SENATE ACTION:

\_\_\_\_\_ Returned from the Senate (as substituted)  
(with amendments)

\_\_\_\_\_ House concurred in Senate amendments by a (non-record vote)  
(record vote of \_\_\_\_\_ yeas, \_\_\_\_\_ nays, \_\_\_\_\_ present, not voting)

\_\_\_\_\_ House refused to concur in Senate amendments and requested the appointment of a conference committee  
by a (non-record vote) (record vote of \_\_\_\_\_ yeas, \_\_\_\_\_ nays, \_\_\_\_\_ present, not voting)

\_\_\_\_\_ House conferees appointed: \_\_\_\_\_, Chair; \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

\_\_\_\_\_ Senate granted House request. Senate conferees appointed: \_\_\_\_\_, Chair;  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

\_\_\_\_\_ Conference committee report adopted (rejected) by the House by a (non-record vote)  
(record vote of \_\_\_\_\_ yeas, \_\_\_\_\_ nays, \_\_\_\_\_ present, not voting)

\_\_\_\_\_ Conference committee report adopted (rejected) by the Senate by a (viva voce vote)  
(record vote of \_\_\_\_\_ yeas, \_\_\_\_\_ nays)

07 MAY -7 PM 11:33

HOUSE OF REPRESENTATIVES

07 MAY -3 AM 1:36

HOUSE OF REPRESENTATIVES